

"Apparatus and method for reforming rod-shaped materials, in particular for drawing and extruding"

Background of the Invention

[0001] The invention relates to an apparatus and a method for reforming electrically conductive and/or magnetizable, rod-shaped materials, in particular for drawing and extruding.

[0002] Such an apparatus has a female mold having a die, which forms the tool for reforming. In addition, the apparatus has an inductor of an electric linear motor. This inductor has at least one first group at least with first coils, these first coils in the first group being arranged axially next to one another, and the center, which remains free, of the coils forming a channel. The rod-shaped material, which is to be reformed and which is electrically conductive and magnetizable, is introduced into this channel. This rod-shaped material forms the armature of the linear motor. Owing to the fact that a traveling magnetic field is produced in the channel of the inductor by the inductor, the armature, i.e. the rod-shaped material, is moved on in the channel. In the process, with an appropriate rating for the inductor, the rod-shaped material can be moved through the die of the female mold, as a result of which the rod-shaped material is reformed.

[0003] Such an apparatus is known, for example, from the document US 3,911,706 A. The document discloses a linear drawing machine for drawing a rod-shaped material through the die of a female mold. For this purpose, the inductor is arranged such that it lies downstream of the die in the drawing direction. The rod-shaped material which is introduced into the die in a manner which is not disclosed in any more detail is passed through the inductor downstream of the die in

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1 This application is a 35 USC 371 of PCT/DE02/03965 filed 10/21/2002.

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